

Notice of Allowability

Application No.

10/603,502

Examiner

Evelyn A. Lester

Applicant(s)

QUAKE ET AL.

Art Unit

2873

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to election filed on 10-4-04.
2. ☒ The allowed claim(s) is/are 24-29,31 and 43-47.
3. ☒ The drawings filed on 24 June 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

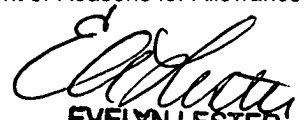
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 6-24-03
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date attached.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.


EVELYN LESTER
PRIMARY EXAMINER

Election/Restrictions

1. Applicant's election without traverse of Group I (claims 24-29, 31 and 43-47) in the reply filed on 10-04-04 is acknowledged.

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with William M. Smith (reg.no. 30,223) on December 16, 2004.

The application has been amended as follows:

Claim 24 has been amended to incorporate the subject matter of withdrawn claim 23, and reads:

--- Claim 24 (currently amended) ~~The~~ An optical device ~~of claim 23 wherein~~ comprising:

a spherical lensing element having a diameter of 10 μ m or less, the spherical lensing element configured to collimate incident light to generate a collimated light beam; and an optical imaging element receiving the collimated light beam,

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wherein the incident light is generated by a source element having a diameter of $10\text{ }\mu\text{m}$ or less that is in physical contact with the spherical lensing element, the diameter of the source element is smaller than the diameter of the of the lensing element. ---

Claim 43 has been amended to incorporate the subject matter of withdrawn claim 42, and reads:

--- Claim 43 (currently amended) ~~The A method of claim 42 further~~ of focusing light comprising:

collimating incident light with a spherical lensing element having a diameter of $10\text{ }\mu\text{m}$ or less, and

generating the incident light from a source element having a diameter of $10\text{ }\mu\text{m}$ or less in physical contact with the spherical lensing element, the diameter of the source element is smaller than the diameter of the lensing element.

Claim 45 has been amended to incorporate the subject matter of withdrawn claim 42, and reads:

--- Claim 45 (currently amended) ~~The A method of claim 42~~ of focusing light comprising collimating incident light with a spherical lensing element having a diameter of $10\text{ }\mu\text{m}$ or less, and

~~further comprising~~ detecting an amplitude of the collimated light.

3. This application is in condition for allowance except for the presence of claims 5-7, 23, 30, 32-42 and 48-56 to an invention non-elected without traverse. Accordingly, claims 5-7, 23, 30, 32-42 and 48-56 have been cancelled.

REASONS FOR ALLOWANCE

4. The following is an examiner's statement of reasons for allowance:

The prior art does not show or fairly suggest the claimed invention of an optical device and method of focusing having the claimed structure and claimed limitations, wherein a rejection under 35 USC 102 or 103 would be improper. Please particularly note the combination of claimed elements and claimed limitations, including the specific combination of the spherical lensing element and the source element, wherein the 10 micron diameter spherical lensing element is in contact with the source element and the source element diameter is smaller than the diameter of the spherical lensing element, as recited in claims 24 and 43 (as amended). Further, as recited in claim 45 (as amended), wherein the optical device has the micron diameter spherical lensing element that collimates the incident light and in addition there is the step of detecting the collimated amplitude. Therefore, in light of the Applicants' amendments and the Examiner's amendment, the claimed invention is considered to be in condition for allowance as being novel and nonobvious over the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

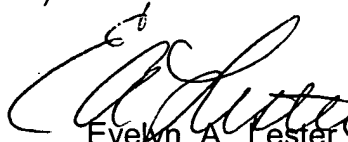
The following are U.S. patents and U.S. patent publications directed to some optical micro-sized technologies:

Walt et al	U.S. Patent Pub. 2003/0032204 A1
Speakman	U.S. Patent Pub. 2003/0076649 A1
Brown et al	U.S. Patent 5,583,351
Walt et al	U.S. Patent 6,200,737 B1
Speakman	U.S. Patent 6,503,831 B2
Barbera-Guillem et al	U.S. Patent 6,548,171 B1
Armstrong et al	U.S. Patent 6,781,690 B2

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Evelyn A. Lester whose telephone number is (571) 272-2332. The examiner can normally be reached on M- F, from about 10 am to 7 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Y. Epps can be reached on (571) 272-2328. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Evelyn A. Lester
Primary Examiner
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